WHAT IS CLAIMED IS:

1. A projection display apparatus that projects images onto a screen responsive to given image data, comprising:

an image extraction section that extracts at least a portion of given first image data as an extraction image;

an extraction image memory for storing extraction image data representing the extraction image;

an image overlay section that generates overlaid image data by superimposing the extraction image on original image represented by given second image data;

a light modulation unit that is driven responsive to the overlaid image data pixel by pixel; and

an optical system for projecting onto the screen the overlaid image obtained by the light modulation unit.

2. A projection display apparatus according to claim 1, wherein the image extraction section can arbitrarily set the portion to be extracted from the first image data.

3. A projection display apparatus according to claim 1 or 2, wherein the image overlay section superimposes the extraction image at a desired position on the original image.

4. A projection display apparatus according to any of claims 1 to 3, wherein the extraction image memory stores a plurality of extraction image data

representing a plurality of extraction images, and the image overlay section superimposes at least one selected extraction image at each specified position on the original image.

5. A projection display apparatus according to any of claims 1 to 4, wherein the image overlay section comprising:

a synthesizer section that generates the overlaid image data by synthesizing the given second image data and the extraction image data read out from the extraction image memory; and

a frame memory for storing the overlaid image data, the frame memory having at least a memory area corresponding to all the pixels of the light modulation unit, the overlaid image data read out of the frame memory being supplied to the light modulation unit.

6. A projection display apparatus according to any of claims 1 to 4, wherein the image overlay section comprising:

a frame memory for storing the given second image data, the frame memory having at least a memory area corresponding to all the pixels of the light modulation unit; and

a synthesizer section that generates the overlaid image data by synthesizing the second image data read out from the frame memory and the extraction image data read out from the extraction image memory, the overlaid image data synthesized by the synthesizer section being supplied to the light modulation unit.

7. A projection display apparatus according to claim 5 or 6, wherein the synthesizer section comprises a data selector that selects either one of the second image data and the extraction image data, pixel by pixel, to produce the overlaid image data.

8. A projection display apparatus according to claim 5 or 6, wherein the synthesizer section comprising:

a multiplier section that multiplies the second image data and the extraction image data by respective coefficients on a pixel by pixel basis; and

an adder section that adds the multiplied second image data and the extraction image data on a pixel by pixel basis.

9. A projection display apparatus according to claim 8, wherein the synthesizer section comprises a coefficient setting section that controls the coefficients in the multiplier section to change a synthesis ratio between the second image data and the extraction image data, thereby adjusting a degree of transparency of the extraction image superimposed on the original image.

10. A projection display apparatus according to claim 9, wherein the coefficient setting section changes the coefficients in the multiplier section with time to change the synthesis ratio between the second image data and the extraction image data, thereby changing the degree of transparency of the extraction image superimposed on the original image with time.

11. A projection display apparatus that projects images onto a screen,

comprising:

a frame memory for storing image data representing an image to be displayed;

a image display signal generator for generating image display signals based on the image data stored in the frame memory;

a electro-optical device for emitting light to form images responsive to the image display signals;

a projection optical system for projecting light emitted by the electro-optical device;

an image extraction section that extracts at least a portion of an extraction target image selected arbitrarily from among images given externally as an extraction image;

an extraction image memory for storing extraction image data representing the extraction image; and

a specific image display control section that in a specific display condition displays a specific image represented by specific image data including the extraction image data stored in the extraction image memory.

12. A projection display apparatus according to claim 11, wherein the image extraction section implements the steps of:

displaying an extraction image setting screen for setting image extraction conditions comprising at least an extraction area and an extraction magnification factor;

displaying an extraction area specifying image used in setting the extraction area on the extraction target image;

when the extraction area is set with the extraction area specifying image, writing into the frame memory selected extraction image data representing a selected extraction image corresponding to the set extraction area;

when a display magnification factor is set, enlarging or reducing the selected extraction image data based on the magnification factor and writing the enlarged or reduced selected extraction image data into the frame memory; and

when a desired display magnification factor is determined, storing the selected extraction image data enlarged or reduced based on the desired display magnification factor in the extraction image memory.

13. A projection display apparatus according to claim 11 or 12, wherein the image extraction section displays a predetermined extraction frame as the extraction area specifying image, the predetermined extraction frame having a first black outline, a second black outline inside the first black outline and a white area between the first and second black outlines.

14. A projection display apparatus according to any of claims 11 to 13, wherein the extraction image memory stores a plurality of extraction image data representing a plurality of extraction images; and

the specific image display control section displays a specific image that include at least one extraction image selected from among the plurality of extraction images in the specific display condition.

15. A projection display apparatus according to claim 14, wherein the specific image display control section selects at least two of the extraction images

from among the plurality of extraction images and displays the selected images in order.

16. A projection display apparatus according to any of claims 11 to 15 further comprising an operating condition judging section that judges if the projection display apparatus is in a specific operating condition, wherein the specific image display control section displays the specific image when the specific operating condition is detected by the operating condition judging section.

17. A projection display apparatus according to claim 16, wherein the operating condition judging section detects as the specific operating condition at least one state selected from a state in which no image signal is being given to the projection display apparatus, and another state in which the projection display apparatus is within a prescribed period after startup.

18. A projection display apparatus that projects images, comprising:

a frame memory for storing image data representing an image to be displayed;

a image display signal generator for generating image display signals based on the image data stored in the frame memory;

a electro-optical device for emitting light to form images responsive to the image display signals;

a projection optical system for projecting light emitted by the electro-optical device;

an operating condition judging section that judges if the projection display

apparatus is in a specific operating condition; and

a specific image display control section that displays the specific image represented by the specific image data when the operating condition judging section detects the specific display condition.

19. A projection display apparatus according to claim 18, wherein the operating condition judging section detects as the specific operating condition at least one state selected from a state in which no image signal is being given, and another state in which the projection display apparatus is within a prescribed period after startup.

20. An image display apparatus that displays images, comprising:

a frame memory for storing image data representing an image to be displayed;

a image display signal generator for generating image display signals based on the image data stored in the frame memory;

a electro-optical device for emitting light to form images responsive to the image display signals;

an image extraction section that extracts at least a portion of an extraction target image selected arbitrarily from among images given externally as an extraction image;

an extraction image memory for storing extraction image data representing the extraction image; and

a specific image display control section that in a specific display condition displays the specific images represented by a specific image data including the

extraction image data stored in the extraction image memory.

21. An image display apparatus that displays images, comprising:

a frame memory for storing image data representing an image to be displayed;

a image display signal generator for generating image display signals based on the image data stored in the frame memory;

a electro-optical device for emitting light to form images responsive to the image display signals;

an operating condition judging section that judges if the projection display apparatus is in a specific operating condition; and

a specific image display control section that displays the specific image represented by the specific image data when the operating condition judging section detects the specific display condition.

22. A method of displaying images using a projection display apparatus having a light modulation unit to display an image based on image data given to the projection display apparatus by projecting the image on a screen, comprising the steps of:

extracting at least a portion of given first image data as an extraction image;

preparing extraction image data representing the extraction image;

generating overlaid image data by superimposing the extraction image on an original image represented by given second image data;

driving light modulation unit responsive to the overlaid image data pixel

by pixel basis; and

projecting onto a screen overlaid images obtained by the light modulation unit.

23. A method of displaying a specific image using a projection display apparatus, comprising the steps of:

extracting at least a portion of a given extraction target image as an extraction image;

preparing extraction image data representing the extraction image; and

in a specific display condition, displaying a specific image represented by specific image data including the extraction image data.

24. A method of displaying a specific image using a projection display apparatus, comprising the steps of:

judging if the projection display apparatus is in a specific operating condition;

when it is judged that there is a specific operating condition, storing specific image data to a frame memory to display a specific image represented by specific image data.